

KANISHK YADAV

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EDUCATION

Birla Institute of Technology and Science, Pilani

B.E. Computer Science & M.Sc. Chemistry | CGPA: **8.63** (10-point scale)

Hyderabad, India

2019 - 2024

Relevant Coursework: Natural Language Processing, Machine Learning, Computer Vision, Data Structures & Algorithms, Object Oriented Programming, Operating Systems, Discrete Structures in Computer Science, Linear Algebra, Probability & Statistics, Differential Equations

EXPERIENCES

Software Development Engineer II | Walmart Global Tech

Sam's Club Order Management System

Bengaluru, India

Aug '24 - Present

- Modernizing Carrier and Shipment Logistics at Sam's Club by migrating legacy systems to the Walmart Cloud Native Platform
- Integrating webhooks for real-time tracking, enhancing member experience and operational efficiency at Sam's Club

Research Intern | Nanyang Technological University

Supervisor: Prof. Chng Eng Siong

Singapore

Jan '24 - Jul '24

Voice Activity Detection in End-to-End Speaker Diarization

- Optimized streaming VAD with Pyannote for low-latency inferencing, improving ROC-AUC and reducing false alarms
- Developed a real-time speaker counting model using WavLM, achieving 91% accuracy on Libri2Mix and 87% on DIHARD III

Mitacs Globalink Research Intern | University of Toronto

Supervisor: Prof. Oleksandr Voznyy

Toronto, Canada

Jul '23 - Apr '24

Graph Neural Networks for Quantum Chemical Screening of New Optoelectronic Materials (Draft paper under preparation)

- Developed a deep learning model to predict atomic properties (band gaps) using dense and sparse representations from molecular data
- Designed training methods with shared-weights architectures thereby improving model's accuracy on limited training data

Software Engineer Intern | Walmart Global Tech

Sam's Club Order Management System

Bengaluru, India

May '23 - Jul '23

- Drastically improved workflow efficiency by developing an NLP pipeline to automate the carrier status to milestone mapping process
- Leveraged traditional models like SVM (83.2%), MLP (73.9%) and Multinomial Naïve Bayes (60.9%) employing tf-idf vectorization
- Developed a user-friendly web application to simplify global shipment analysis, enabling easy access to data from Azure database

Deep Learning Intern | Bharat Electronics Limited

Video Analytics in Sea Environment

Bengaluru, India

May '21 - Jul '21

- Implemented a YOLO-v5 object detection model tailored to detect and label nine classes of ships achieving a mAP of 0.86
- The model excelled in object detection but had limitations in detecting and categorizing objects with varied orientations/perspectives

PROJECTS

Conversational AI Chatbot | Chubb

Jan '23 - May '23

- Developed a chatbot proficient in both transactional (knowledge graph) and non-transactional (ChatGPT/DialoGPT) interactions
- Implemented intent classification using SentenceTransformers and incorporated a fallback mechanism for unmatched intents (Presented the project impact to Mohan Narayanaswamy - CEO, and MD at Chubb, India)

POS Tagger for Hindi-English Code-Mixed Data

Nov '22 - Dec '22

- Developed a POS tagger tailored for English-Hindi code-mixed data, addressing a complex linguistic phenomenon
- Engineered a pipeline, integrating NLTK for English and a trained HMM for Hindi to integrate language-specific POS tags

COURSEWORK & CERTIFICATIONS

- NLP with Classification and Vector Spaces ^c, Convolutional Neural Networks ^c, Generative Adversarial Networks ^c
- Winter School on Deep Learning 2024 by Indian Statistical Institute, Kolkata
- Accelerate Conference 2023, University of Toronto (Attendee)
- Data Cloud and Applied ML Summit 2022, Google Cloud (Attendee)

^c - completed on Coursera

TECHNICAL SKILLS

Languages: Python, Java, C++, C, SQL | **Libraries:** OpenCV, PyTorch, TensorFlow, NumPy, Pandas, Matplotlib, Seaborn

Developer Tools: Git, Google Colaboratory, IntelliJ | **Frameworks:** Keras API, Spring Kafka

POSITIONS OF RESPONSIBILITY

Team Leader | Alumni Mentorship Program, BITSAA International

Oct '24 - Present

Facilitating mentor-mentee connections through networking events, career guidance and alumni engagement

Head | Department of Photography, BITS Pilani

Jun '21 - Jun '22

Led a team of 65 passionate photographers in various yearlong college events including the Technical, Cultural and the Sports fest

Secretary | Alchemy - The Chemistry Association, BITS Pilani

Jun '21 - Jun '22

Led a team of 30 members to organize events, including guest lectures, seminars, publish weekly editorials and launch a podcast series